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EXAMINER

FERGUSON, KEITH

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/839,832	Applicant(s) CHOKSI, OJAS T.	
	Examiner Keith T. Ferguson	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-40,43,44 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al., newly recited reference.

Regarding claim 1, Chang et al. discloses a method for detecting a wireless network (fig. 2 and col. 8 line 34 through col. 9 line 2), comprising: receiving at a mobile device a signal having data indicative of a location of the mobile device (col. 8 lines 27-40); determining whether the mobile device is within a coverage area of a specified network (private system) based on the data (col. 8 lines 27-50); and scanning (performing a search) for the specified network in response to at least determining that the mobile device is within the coverage area of the specified network (col. 8 lines 27-50). Chang et al. differs from claim 1 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network. Souissi et al. teaches a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). A distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55,

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fig. 4 and col. 4 line 64 through col. 5 line 40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. method of detecting a wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network in order for the mobile device to quickly detect and select a preferred private wireless system when roaming within a specified distance of the preferred private system which saves power within the mobile device by not having to continuous scan channels of the private wireless system, as taught by Souissi et al..

Regarding claims 2,15 and 28, Chang et al. discloses the signal comprises a base station broadcast message (public system information) having a base station identifier (base station identifier contained within) (col. 6 lines 1-59), further comprising: extracting the base station identifier from the base station broadcast message (col. 6 lines 17-59); comparing (matching) the base station identifier to a listing of base station identifiers for base stations at least proximate to the specified network (i.e. a match between the broadcast public system information and that stored in the overlaying system table) (col. 6 lines 17-59); and scanning (attempts to locate) for the specified network in response to at least the base station identifier from the base station broadcast message matching one of the base station identifiers in the listing of base station identifiers (col. 6 lines 27-59).

Regarding claims 3,16 and 29, Chang et al. discloses the base station identifiers for the specified network are stored in a network table at the mobile device (col. 5 line 57 through col. 6 line 22).

Regarding claims 4,17 and 30, Chang et al. discloses a base station broadcast message having a latitude and longitude of the base station (col. 7 line 51 through col. 8 line 15), further comprising: extracting the latitude and longitude from the base station broadcast message (col. 7 line 51 through col. 8 line 15); comparing a location based on the latitude and longitude to the coverage area of the specified network (col. 7 line 51 through col. 8 line 15); and scanning (attempts to locate) for

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the specified network in response to at least the location being within the coverage area of the specified network (col. 7 line 51 through col. 8 line 15).

Regarding claims 5,8,18,21,31 and 34, Chang et al. discloses the coverage area is defined at the mobile device (i.e. the mobile device compares the broadcast information with in information stored within its memory) (col. 6 lines 17-59).

Regarding claims 6,9,19,22,32 and 35, Chang et al. discloses the coverage area is defined by at least a center (i.e. a base station within the center of the cell) (fig. 5 number 505), a shape (circle) (fig. 5 number 505) and dimensional information for the coverage area (fig. 5 LAT/LONG number 505).

Regarding claims 7,20 and 33, Chang et al. discloses a global positioning satellite (GPS) signal (inherent, when a mobile device detects a GPS signal, taught in col. 3 lines 29-36), further comprising: determining a location of the mobile device based on the GPS signal (col. 3 lines 29-36); comparing the location of the mobile device to the coverage area of the specified network (col. 5 line 57 through col. 6 line 59); and scanning (attempts to locate) for the specified network in response to at least the mobile device being within the coverage area of the specified network (col. 5 line 57 through col. 6 line 59).

Regarding claims 10,23 and 36, Chang et al. discloses the signal comprises a CDMA base station broadcast signal (col. 10 lines 11-35).

Regarding claims 11,24 and 37, Chang et al. discloses a preferred network for a user of the mobile device (col. 5 lines 18-21).

Regarding claims 12,25 and 38, Chang et al. discloses camping (i.e. attempt to register) onto the specified network if available (col. 5 lines 18-28 and col. 8 line 67 through col. 9 line 2).

Regarding claims 13,26 and 39, Chang et al. discloses determining whether the mobile device is within the coverage area of the specified network based on the data indicative of location and coverage data for the specified network corresponding in type

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to the data indicative of location (col. 5 line 57 through col. 6 line 59 and col.7 line 51 through 4).

Regarding claims 14 and 27, Chang et al. discloses a system for detecting a wireless network (fig. 1 and col. 8 line 34 through col. 9 line 2), comprising: means (logic operative to receive) for receiving at a mobile device a signal (logic encoded in media) having data indicative of a location of the mobile device (col. 8 lines 27-40); means for determining whether the mobile device is within a coverage area of a specified network (private system) based on the data (col. 8 lines 27-50); and means for scanning (performing a search) for the specified network in response to at least determining that the mobile device is within the coverage area of the specified network (col. 8 lines 27-50). Chang et al. differs from claims 14 and 27 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network. Souissi et al. teaches a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). A distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. system for detecting a wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network in order for the private wireless system to provide services to the mobile device when the mobile device quickly detect and select the private wireless system for service when roaming within a specified distance of the private wireless system which saves power within the mobile device, as taught by Souissi et al..

Regarding claim 40, Chang et al. discloses a method (fig. 2) for detecting a preferred (private) wireless network while camped onto an overlying macro (public system) network (fig. 1, col. 5

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line 57 through col. 6 line 63 and col. 8 lines 40-55), comprising: receiving at a mobile device a base station broadcast message having a base station identifier (public system information) (col. 5 line 57 through col. 6 line 22); extracting a base station identifier from the base station broadcast message (col. 6 line 1-22); determining whether the mobile device is within a coverage area of a preferred network by comparing the base station identifier to a listing of base station identifiers for base stations at least proximate to the preferred network stored in a network table at the mobile device (col. 6 line 1-19); scanning (attempt to locate) for the preferred network in response to at least the base station identifier from the base station broadcast message matching one of the base station identifiers in the network table (col. 6 line 17-58); and camping onto the preferred network if available (col. 6 line 50-63). Chang et al. further discloses the mobile device camps onto the preferred network even if the mobile device is receiving signals from the overlying macro network (fig. 6 and col. 7 lines 42-47). Chang et al. differs from claim 40 of the present invention in that it does not disclose wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network. Souissi et al. teaches a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). A distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chang et al. method of detecting a preferred wireless network with wherein a decision as to whether to scan, by the mobile device for the specified network is based on a distance between the location of the mobile station and a location of the specified network in order for the mobile device to quickly detect and select a preferred private wireless system when roaming within a specified distance of the preferred private system which saves power within the mobile device by not having to continuous scan channels, and saves money by receiving cheaper rates for service by selecting the preferred private wireless system, as taught by Souissi et al..

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Regarding claim 43, Chang et al. discloses the base station identifier (col. 6 lines 1-22) is for a base station of the specified (private) network and the base station broadcast message is transmitted by a base station of a disparate network (public) (col. 6 lines 1-22).

Regarding claim 44, Chang et al. discloses the base station identifier (col. 6 lines 1-22) is for base station of a disparate (private) network and the base station broadcast message is transmitted by a base station of the disparate (public) network (col. 6 lines 1-22).

Regarding claim 48, Chang et al. discloses receiving at the mobile device the base station broadcast message having the base station identifier and a network identifier (SID) (col. 6 lines 1-22); extracting the network identifier (SID) from the base station broadcast message) (col. 6 lines 1-22; determining whether the mobile device is within the coverage area of the preferred (private) network by comparing the network identifier (SID) to a stored network identifier for the preferred network (col. 5 line 57 through col. 6 line 58); and scanning (attempt to locate) for the preferred network in response to at least a network identifier from the base station broadcast message matching the stored network identifier (col. 6 line 17-58).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Seazholtz et al..

Regarding claims 41 and 42, the combination of Chang et al. and Souissi et al. differs from claims 41 and 42 of the present invention in that they do not disclose the mobile device camps onto the preferred network if available so long as signals are received from the preferred network at a minimal signal strength, and the mobile device camps onto the preferred network even if the mobile device is receiving signals from the overlying macro network at a strength greater than that of signals from the preferred network. Seazholtz et al. teaches subscriber station selects a SID within its memory based upon a biasing process if available so long as signals are received from the preferred SID list at a minimal signal strength (col. 15 line 52 through col. 16 line 35), and the subscriber station selects the preferred SID even if receiving signals from other SIDS at a strength greater than that of signals from the preferred SID (col. 16 lines 20-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with the mobile device camps onto the preferred network if available so long as signals are received from the preferred network at a minimal signal strength, and the mobile device camps onto the preferred network even if the mobile device is receiving signals from the overlying macro network at a strength greater than that of signals from the preferred network in order for the mobile device to receive cheaper rates when communicating in within the private network as long as the signal strength is good enough for reliable communication, as taught by Seazholtz et al..

5. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Yahagi.

Regarding claim 45, the combination of Chang et al. and Souissi et al. differs from claim 45 of the present invention

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in that they do not disclose the base station identifier is automatically updated by the base station of the disparate network based on radio discovery. Yahagi teaches once a mobile station moves into a different area an update is made with a database of the new location and new base station within the system (col. 2 lines 1-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with the base station identifier is automatically updated by the base station of the disparate network based on radio discovery in order for the private network to provide services to the mobile device which may provide a cheaper rate for service, as taught by Yahagi.

6. Claims 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as applied to claim 40 above and in further view of Ishida.

Regarding claim 46, the combination of Chang et al. and Souissi et al. differs from claim 46 of the present invention in that they do not disclose backing off scanning after each scan and termination scanning for the specified network after a specified number of tries, and terminating the scan upon leaving the coverage area. Ishida teaches backing off scanning after each scan (col. 4 lines 16-24) and termination scanning after a specified number of tries (col. 4 lines 16-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with backing off scanning after each scan and termination scanning for the specified network after a specified number of tries, and terminating the scan upon leaving the coverage area in order for the radio telephone to save battery resources within by not continuing to scan a private system signal and to stop scanning the public system when a private system signal is found, as taught by Ishida.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. in view of Souissi et al. as

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applied to claim 40 above and in further view of Brederveld et al..

Regarding claim 47, the combination of Chang et al. and Souissi et al. differs from claim 47 of the present invention in that it does not disclose terminating the scan upon leaving the coverage area. Brederveld et al. teaches a mobile station that stops searching a previous base station when a candidate base station for handover signal is better (col. 4 line 54 through col. 5 line 20 and fig. 5a and fig. 5b number 124). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Chang et al. and Souissi et al. with terminating the scan upon leaving the coverage area in order for the radio telephone to be connected with the private system where air time is cheaper, as taught by Brederveld et al..

Response to Arguments

8. Applicant's arguments filed March 8, 2005 are similar to applicants arguments filed January 25, 2005 that have been fully considered but they are not deemed to be persuasive. The following are explanations to the applicant arguments:

Argument: Regarding claim 1, applicant alleges that Chang do not disclose or suggest "receiving at a mobile device a signal having data indicative of a location of the mobile device and determining whether the mobile device is within a coverage area of a specified network based on the data.

Explanation: The examiner respectfully disagrees, because Chang teaches a radio telephone when powering up or enters the coverage area of a public system base station it obtains userzone IDs from the paging channel. If the radiotelephone finds a userzone id that match those stored in the radiotelephone, the radiotelephone attempts to locate the userzone using the broadcast information parameters within its service area. If the radiotelephone determines that it is within the boundaries of a particular user zone it displays the alphanumeric tag associated with the user zone (col. 7 line 65

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through col. 8 line 11). Chang further teaches when the radiotelephone powers up and monitoring the public system, the radiotelephone obtains private system user zone information, and if a userzone match a userzone stored within the radio telephone memory, it attempts to register with the private system and registers with that private system (col. 8 lines 36 through col. 9 line 2).

Argument: Applicant alleges that Chang does not include a mobile device, as its focal point in defining location.

Explanation: Examiner respectfully disagrees, because when Chang radiotelephone receives the userzone IDs broadcast by the public system and attempts to register with the Userzone IDs stored within its memory and displays the user zone (col. 8 lines 1-15). The user zone includes the user zone ID, latitude, longitude, and radius (col. 7 lines 54-64 and col. 8 lines 25-31).

Argument: Applicant alleges that Souissi simply fails to offer anything that is combinable with Chang that would be material to patentability. In particular, Souissi is deficient in a number of aspects. For example, Souissi provides a distance evaluation: but an evaluation that is not within the environment of detennining whether the mobile device is within a coverage area of a specified network based on the data and scannning for the specified network in response to at least detennining that the mobile device is within the coverage area of the specified network.

Explanation: Examiner agrees with applicant, however, the Souissi et al. reference teaches a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). A distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). The Souissi et al. reference is used to teach applicant claim 1 as a whole, and only address the new claim limitation which Chang reference does not teach.

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Argument: Regarding claim 1, Applicant alleges that there is no teaching or motivation to combine Chang, Souissi and Seazholtz.

Explanation: Examiner respectfully disagrees, claim 1 is rejected by Chang and Souissi. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. It is not necessary that the reference actually suggest, expressly or in so many words the changes or improvements that applicants has made. The test for combine references is what the references as a whole would have suggested to one of ordinary skill in the art. Chang teaches a radio telephone when powering up or enters the coverage area of a public system base station it obtains userzone IDs from the paging channel. If the radiotelephone finds a userzone id that match those stored in the radiotelephone, the radiotelephone attempts to locate the userzone using the broadcast information parameters within its service area. If the radiotelephone determines that it is within the boundaries of a particular user zone it displays the alphanumeric tag associated with the user zone (col. 7 line 65 through col. 8 line 11). Chang further teaches when the radiotelephone powers ups and monitoring the public system, the radiotelephone obtains private system user zone information, and if a userzone match a userzone stored within the radio telephone memory, it attempts to register with the private system and registers with that private system (col. 8 lines 36 through col. 9 line 2). Souissi et al. teaches a location is determined at which a subscriber unit communicating with a first wireless system is positioned (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40), a distance between the location and a second wireless system preferred by the subscriber unit is calculated, and based upon the distance, it is decided whether the subscriber unit will scan for a signal from the second wireless system (abstract, col. 1 lines 35-55, fig. 4 and col. 4 line 64 through col. 5 line 40). Souissi et al. is used to modify Chang in order for the radiotelephone to quickly detect and select a preferred private wireless system when roaming within a specified distance of the preferred private system which saves power within the

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mobile device by not having to continuous scan channels of the private wireless system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (571) 272-7865. The examiner can normally be reached on 6:30am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson



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May 19, 2005